



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/028,096	10/25/2001	Masaki Takasan	5000-4967	1092

7590 04/01/2003

MORGAN & FINNEGAN, L.L.P.
345 Park Avenue
New York, NY 10154

EXAMINER

CHAPMAN JR, JOHN E

ART UNIT	PAPER NUMBER
----------	--------------

2856

10

DATE MAILED: 04/01/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application N .

10/028,096

Applicant(s)

TAKASAN ET AL.

Examin r

John E Chapman

Art Unit

2856

-- The MAILING DATE of this communication appears on th cover sheet with the correspondenc address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 February 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) 4 and 10 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 14, 16 and 17 is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-9, 11-13 and 15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 6. 6) ☐ Other: _____

DETAILED ACTION

1. Claims 4 and 10 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made without traverse in Paper No. 9.

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 15 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

It is not clear what limitation claim 15 adds to claim 14. Claim 15 recites "further including a vibration device" but no additional elements are recited. Regarding the "wherein" clause, the specification does not appear to describe an external impedance element 14 which is connected to the first transducer 5 and located in the second transducer 6.

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 8 and 11-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 09-202425.

JP 09-202425 discloses an apparatus for levitating and transporting an object 7 comprising a plurality of vibrators 3, each comprising a piezoelectric transducer 16 connected to an oscillator 15, which is in turn is connected to an AC power source. An LR circuit adjusts the impedance of the vibrator. Accordingly, the only difference between the claimed invention and the prior art consists in connecting both vibrators 3 to a common power supply. In most environments there is but a single source of AC power provided by a local power company, and it would have been obvious, if not necessary, to connect both vibrators to that source of power. In the rare instances where there is available an alternative source of AC power, it still would have been obvious to use a single source of AC power in order to minimize the number of electrical connections.

6. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over JP 09-202425 as applied to claims 8 above, and further in view of Hashimoto et al. (1998).

It would have been obvious to provide a variable impedance in order to obtain the maximum excitation of travelling wave, as taught by Hashimoto et al. (p. 3231).

7. Claims 1 and 5-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 09-202425 as applied to claim 8 above, and further in view of Rey.

It is well known in the art to use either a magnetostrictive or piezoelectric transducer to produce levitating waves, as taught by Rey (col. 2, lines 59-64). Accordingly, it would have been

an obvious substitution of functional equivalents to use a magnetostrictive transducer in lieu of the piezoelectric transducer 16 of JP 09-202425.

8. Claims 2 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 09-202425 in view of Rey as applied to claim 1 above, and further in view of Hashimoto et al. (1998).


It would have been obvious to provide a variable impedance in order to obtain the maximum excitation of travelling wave, as taught by Hashimoto et al.

9. Claims 14, 16 and 17 are allowed.

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Hashimoto et al. discloses an object levitating apparatus. Smathers discloses a sheet levitational support.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mr. Chapman whose telephone number is (703) 305-4920.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0956.


JOHN E. CHAPMAN
PRIMARY EXAMINER